ON-CHIP SERVICE PROCESSOR FOR TEST AND DEBUG OF INTEGRATED CIRCUITS

ABSTRACT OF THE DISCLOSURE

An integrated circuit is described which include a stored program processor

for test and debug of user-definable logic plus external interface between the test/debug
circuits and the component pins. The external interface may be via an existing test interface,
or a separate serial or parallel port. Test and debug circuits may contain scan strings that may
be used to observe states in user-definable logic or be used to provide pseudo-random bit
sequences to user-definable logic. Test and debug circuits may also contain on-chip logic
analyzer for capturing sequences of logic states in user-definable circuits. Test and debug
circuits may be designed to observe states in user-definable circuits during the normal system
operation of said user-definable circuits.